



**KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
1000 SOUTHWEST JACKSON SUITE 310
TOPEKA KANSAS 66612-1366**

APPLICATION FOR RADIOACTIVE MATERIALS LICENSE - MEDICAL

INSTRUCTIONS - Complete Items 1 through 23 if this is an initial or renewal Application. If application is for amendment of a license, complete only Items 1 through 3 and indicate new information or changes in the program as requested in Items 4 through 22. Use supplemental sheets where necessary. Item 23 must be completed on all Applications. Mail one copy along with applicable fee to: Kansas Department of Health and Environment, Bureau of Air and Radiation, Radiation Control Program, 1000 SW Jackson, Suite 310, Topeka, Kansas 66612-1366 Telephone: (785) 296-1560. Upon approval of this application, the applicant will receive a Kansas Radioactive Materials License, issued in accordance with the general requirements contained in State of Kansas, Department of Health and Environment, Radiation Protection Regulations and the Kansas Nuclear Energy Development and Radiation Control Act.

| | |
|---|---|
| 1. a. Name And Complete Mailing Address of Applicant | 1.b. Street Address(es) where Radioactive Material Will Be Used |
| | |
| | |
| | |
| Phone No. : | |
| 2. Person to Contact Regarding this Application: | |
| | |
| | |
| E-mail: | Phone No. : |
| 3. Type of Application <input type="checkbox"/> New License <input type="checkbox"/> Amendment <input type="checkbox"/> Renewal License No.: | |
| 4. Individuals Who Will Use or Directly Supervise the Use of Radioactive Material (Attach Training and Experience Supplement A & B) | |
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| | |
| | |
| 5. RADIATION SAFETY OFFICER (Attach training and experience Supplement A if not previously provided). | |
| Name: | |
| <input type="checkbox"/> Duties and responsibilities are as described in the Medical Program Licensing Guide Appendix C | |
| <input type="checkbox"/> Duties and responsibilities in addition to those described in the Medical Program Licensing Guide Appendix C are attached. | |

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|---|---|-----------------------------------|--------------------------------|--|
| 6. a. RADIOACTIVE MATERIAL FOR MEDICAL USE | | | | |
| Radionuclide | Chemical and/or physical form | | | MAXIMUM POSSESSION LIMIT (millicuries) |
| <input type="checkbox"/> Any listed in Group I Schedule D, K.A.R. 28-35-199a | Any radiopharmaceuticals for diagnostic studies involving measurements of uptake, dilution and excretion. | | | As Needed |
| <input type="checkbox"/> Any listed in Group II Schedule D, K.A.R. 28-35-199a | Any radiopharmaceuticals for diagnostic studies involving imaging and tumor localizations. | | | As Needed |
| <input type="checkbox"/> Any listed in Group III Schedule D, K.A.R. 28-35-199a | Generators and reagent kits for diagnostic uses. | | | |
| <input type="checkbox"/> Any listed in Group IV Schedule D, K.A.R. 28-35-199a | Any radiopharmaceuticals for therapeutic uses that do not normally require hospitalization. | | | |
| <input type="checkbox"/> Any listed in Group V Schedule D, K.A.R. 28-35-199a | Any radiopharmaceuticals for therapeutic uses that normally require hospitalization. | | | |
| <input type="checkbox"/> Any listed in Group VI Schedule D, K.A.R. 28-35-199a | Any form listed excluding remote afterloader devices | | | |
| <input type="checkbox"/> Any listed in Group VI Schedule D, K.A.R. 28-35-199a | Any sealed source in remote afterloader devices Manufacturer & Model: | | | |
| 6. b. RADIOACTIVE MATERIAL FOR USES NOT LISTED IN ITEM 6.a. This could include calibration and reference sources or isotopes not included in one of the groups in section 6.a. (Small sealed sources up to 3 millicuries used for calibration and reference standards may be authorized under K.A.R. 28-35-181d(e) and may not need to be listed.) | | | | |
| Radionuclide | Chemical and/or physical form (If sealed source, state the manufacturer & model number). | Maximum Activity per Source (mCi) | Maximum Possession Limit (mCi) | Describe Use |
| | | | | |
| | | | | |
| | | | | |
| 7. RADIATION SAFETY COMMITTEE | | | | |
| <input type="checkbox"/> The Radiation Safety Committee is as described in the Medical Program Licensing Guide Appendix B <input type="checkbox"/> Description of the Radiation Safety Committee is attached. <input type="checkbox"/> This application is for a private practice and a Radiation Safety Committee is not required. | | | | |
| 8. INSTRUMENTATION: Attach a completed Appendix D from the Medical Program Licensing Guide or equivalent information. | | | | |
| 9. a. CALIBRATION OF INSTRUMENTS | | | | |
| <input type="checkbox"/> Radiation survey instruments will be calibrated by a service company/consultant authorized to perform such services. A copy of the license authorizing such services will be maintained. Name and license number: <input type="checkbox"/> Radiation survey/monitoring instruments will be calibrated using the model calibration procedures in the Medical Program Licensing Guide Appendix E. <input type="checkbox"/> Radiation survey/monitoring instruments will be calibrated using the attached procedures. | | | | |
| 9.b. CALIBRATION OF DOSE CALIBRATORS | | | | |
| <input type="checkbox"/> Dose calibrators will be calibrated by a service company/consultant authorized to perform such services. A copy of the license authorizing such services will be maintained. Name and license number: <input type="checkbox"/> Dose calibrators will be calibrated using the model calibration procedure in the Medical Program Licensing Guide Appendix E. <input type="checkbox"/> Procedure for calibration of dose calibrators is attached. | | | | |

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| 10. FACILITIES AND EQUIPMENT Attach a sketch and a complete description of the facility and equipment. |
| 11. PERSONNEL TRAINING PROGRAM <input type="checkbox"/> The personnel training program will be conducted as described in the Medical Program Licensing Guide Appendix R. <input type="checkbox"/> A description of the personnel training program is attached. |
| 12. ORDERING AND RECEIPT OF RADIOACTIVE MATERIAL <input type="checkbox"/> Ordering and receipt of radioactive material will be as described in the Medical Program Licensing Guide Appendix F. <input type="checkbox"/> Procedure for ordering and receipt of radioactive material is attached. |
| 13. SAFELY OPENING PACKAGES CONTAINING RADIOACTIVE MATERIAL <input type="checkbox"/> Opening packages containing radioactive material will be as described in the Medical Program Licensing Guide Appendix G. <input type="checkbox"/> Procedure for opening packages containing radioactive material is attached. |
| 14. GENERAL RULES FOR THE SAFE USE OF RADIOACTIVE MATERIAL <input type="checkbox"/> General rules for the safe use of radioactive material will be as described in the Medical Program Licensing Guide Appendix H. <input type="checkbox"/> General rules for the safe use of radioactive material is attached. |
| 15. EMERGENCY PROCEDURES <input type="checkbox"/> Emergency procedures will be as described in the Medical Program Licensing Guide Appendix I. <input type="checkbox"/> Emergency procedures are attached. |
| 16.a. BIOASSAY PROGRAM <input type="checkbox"/> Bioassay sampling procedure is attached <input type="checkbox"/> There is no bioassay sampling requirement for this license. 16.b. SEALED SOURCE LEAK TESTING <input type="checkbox"/> Sealed source leak testing by a service company/consultant authorized to perform such services. A copy of the license authorizing such services will be maintained. Name and license number: <input type="checkbox"/> Sealed source leak testing will be as described in the Medical Program Licensing Guide Appendix P. <input type="checkbox"/> Procedure for sealed source leak testing is attached. 16.c. ALARA PROGRAM <input type="checkbox"/> ALARA program will be as described in the Medical Program Licensing Guide Appendix S. <input type="checkbox"/> ALARA program description is attached. 16.d. MOLYBDENUM-99 BREAKTHROUGH <input type="checkbox"/> Molybdenum-99 breakthrough will be as described in the Medical Program Licensing Guide Appendix Q. <input type="checkbox"/> Molybdenum-99 breakthrough description is attached. <input type="checkbox"/> Only unit doses are used therefore the determination of Molybdenum-99 breakthrough is not required for this license. 16.e. USE OF POSITRON EMISSION TOMOGRAPHY (P.E.T.) RADIOPHARMACEUTICALS <input type="checkbox"/> Complete description for the use of Positron Emission Tomography (P.E.T) radiopharmaceuticals on this license are attached. <input type="checkbox"/> Positron Emission Tomography (P.E.T) radiopharmaceuticals will not be used on this license. |

16.f. MOBILE NUCLEAR MEDICINE SERVICE

- ☐ Mobile Nuclear Medicine Service will be as described in the Medical Program Licensing Guide Appendix T
- ☐ Mobile Nuclear Medicine Service description is attached.
- ☐ Mobile Nuclear Medicine Service is not requested and will not be performed on this license..

17. AREA SURVEY PROCEDURES

- ☐ Area radiation and contamination surveys will be as described in the Medical Program Licensing Guide Appendix J.
- ☐ Procedure for area radiation and contamination surveys is attached.

18. WASTE DISPOSAL: Attach a completed Appendix K from the Medical Program Licensing Guide or equivalent information.

19. THERAPEUTIC USE OF RADIOPHARMACEUTICALS GREATER THAN 30 MILLICURIES

- ☐ Therapeutic use of radiopharmaceuticals greater than 30 millicuries will be as described in the Medical Program Licensing Guide Appendix L.
- ☐ Procedure for therapeutic use of radiopharmaceuticals greater than 30 millicuries is attached.
- ☐ Therapeutic use of radiopharmaceuticals greater than 30 millicuries is not requested and will not be performed on this license.

20. THERAPEUTIC USE OF SEALED SOURCES

- ☐ Therapeutic use of sealed sources for the treatment of patients will be as described in the Medical Program Licensing Guide Appendix M.
- ☐ Procedure for therapeutic use of sealed sources for the treatment of patients is attached.
- ☐ Therapeutic use of sealed sources for the treatment of patients is not requested and will not be performed on this license.

21. USE OF RADIOACTIVE GASES AND AEROSOLS

- ☐ Procedure for use of radioactive gases and aerosols is attached and includes all the information required by Appendix N.
- ☐ Use of radioactive gases and aerosols is not requested and will not be performed on this license.

22. PERSONNEL MONITORING DEVICES

| TYPE | | SUPPLIER | EXCHANGE FREQUENCY |
|--------------------|-----------------|----------|--------------------|
| a. WHOLE BODY | FILM | | |
| | TLD | | |
| | OTHER (SPECIFY) | | |
| b. FINGER | FILM | | |
| | TLD | | |
| | OTHER (SPECIFY) | | |
| c. OTHER (SPECIFY) | FILM | | |
| | TLD | | |
| | OTHER (SPECIFY) | | |

CERTIFICATE

(This item must be completed by applicant)

23. The applicant and any official executing this certificate on behalf of the applicant in Item 1, certify that this application is prepared in conformity with State of Kansas, Department of Health and Environment, Radiation Protection Regulations and that all information contained herein, including any supplements attached hereto, is true and correct to the best of our knowledge and belief.

- a. APPLICANT OR CERTIFYING OFFICIAL (Signature)

NAME (Type or Print)

TITLE

- b. DATE:

STATE OF KANSAS
DEPARTMENT OF HEALTH AND ENVIRONMENT
BUREAU OF AIR AND RADIATION, RADIATION CONTROL PROGRAM
1000 SW JACKSON, SUITE 310, TOPEKA, KS 66612-1366

ADDITIONAL AUTHORIZATION REQUEST: HUMAN USE

1. Licensee _____ License No. _____

2. Address _____

3. Names of physicians desiring authorizations listed under (4) below:

a. _____ b. _____ c. _____

4. Authorization desired:

| Isotope | Chemical form | Authorized use | limit |
|---------|---------------|----------------|-------|
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |

5. Signature of applicant:

a. If the license is in name of an institution,
Chairman of Radiation Safety Committee
must sign below.

b. If license is name of individual,
the individual must sign below.

R.S.C. Chairman

Date

Licensee

Date

SUPPLEMENT A
Revised 08/04

TRAINING AND EXPERIENCE
AUTHORIZED USER OR RADIATION SAFETY (PROTECTION) OFFICER

| | |
|----|--|
| 1. | NAME OF AUTHORIZED USER OR RADIATION SAFETY (PROTECTION) OFFICER |
| 2. | STATE OR TERRITORY IN WHICH LICENSED TO PRACTICE MEDICINE |
| a. | KANSAS CERTIFICATE NO. _____ |
| b. | OTHER CERTIFICATE NO. _____ |
| c. | DEPARTMENT _____ |
| d. | MEDICAL SPECIALTY _____ |
| e. | AUTHORIZATIONS DESIRED: |
| | <input type="checkbox"/> Internal administration, diagnostic <input type="checkbox"/> Brachytherapy |
| | <input type="checkbox"/> Internal administration, therapeutic <input type="checkbox"/> Teletherapy |
| | <input type="checkbox"/> In-Vitro studies <input type="checkbox"/> Research |

3. CERTIFICATION

| SPECIALTY BOARD A | CATEGORY B | MONTH AND YEAR CERTIFIED C |
|--|---|-------------------------------|
| The American Board of Health Physics | Health Physics | |
| The American Board of Radiology | Radiological Physics | |
| The American Board of Nuclear Medicine | Nuclear Medicine | |
| The American Board of Pathology in cooperation with the American Board of Nuclear Medicine | Radioisotope Pathology | |
| The American Board of Radiology | Diagnostic Radiology with Special Competence in Nuclear Radiology | |
| The American Board of Radiology | Radiology | |
| The American Board of Radiology | Therapeutic Radiology | |
| Other (Specify) | | |

4. TRAINING RECEIVED IN BASIC RADIOISOTOPE HANDLING TECHNIQUES

| FIELD OF TRAINING A | LOCATION AND DATE(S) OF TRAINING B | Type and Length of Training (hours) | |
|---|---------------------------------------|-------------------------------------|---------------------------------------|
| | | Lecture Laboratory Course C | Supervised Laboratory Experience D |
| a. Radiation Physics And Instrumentation | | | |
| b. Radiation Protection | | | |
| c. Mathematics Pertaining to the Use and Measurement of Radioactivity | | | |
| d. Radiation Biology | | | |
| e. Radiopharmaceutical Chemistry | | | |

SUPPLEMENT B

Revised 08/04

STATE OF KANSAS
DEPARTMENT OF HEALTH AND ENVIRONMENT
PRECEPTOR STATEMENT

Supplement B must be completed by the applicant physicians preceptor. If more than one preceptor is necessary to document experience obtain a separate statement from each.

| | |
|---|---|
| 1. APPLICANT PHYSICIAN'S NAME AND ADDRESS | KEY TO COLUMN C PERSONAL PARTICIPATION SHOULD CONSIST OF: |
| FULL NAME | 1. Supervised examination of patients to determine the suitability for radioisotopes diagnosis and or treatment. 2. Collaboration in dose calibration and actual administration of dose to the patient, including calculation of the radiation dose, related measurement and plotting of data. 3. Adequate period of training to enable physicians to manage radioactive patients and follow patients through diagnoses and/or course of treatment. |
| STREET ADDRESS | |
| CITY STATE ZIP CODE | |

2. CLINICAL TRAINING AND EXPERIENCE OF ABOVE NAMED PHYSICIAN

| ISOTOPE A | CONDITIONS DIAGNOSED OR TREATED B | NUMBER OF CASES INVOLVING PERSONAL PARTICIPATION C | COMMENTS (Additional information or comments may be submitted on separate sheets) |
|------------------------------|---|---|---|
| I-131 OR I-125 | DIAGNOSIS OF THYROID FUNCTION | | |
| | DETERMINATION OF BLOOD AND BLOOD PLASMA VOLUME | | |
| | LIVER FUNCTION STUDIES | | |
| | FAT ABSORPTION STUDIES | | |
| | KIDNEY FUNCTION STUDIES | | |
| | IN VITRO STUDIES | | |
| Co-57, 58 or 60 | B12 ABSORPTION STUDIES | | |
| Cr-51 | DETERMINATION OF BLOOD VOLUME AND RBC SURVIVAL TIME | | |
| OTHER | | | |
| I-125 | DETECTION OF THROMBOSIS | | |
| I-131 | THYROID IMAGING | | |
| P-32 | EYE TUMOR LOCALIZATION | | |
| Se-75 | PANCREAS IMAGING | | |
| Yb-169 | CISTERNOGRAPHY | | |

| ISOTOPE A | CONDITIONS DIAGNOSED OR TREATED B | NUMBER OF CASES INVOLVING PERSONAL PARTICIPATION C | COMMENTS (Additional information or comments may be submitted on separate sheets) |
|-----------------------|--|--|---|
| Ga-67 | DETECTION OF HODGKIN'S DISEASE AND SOFT TISSUE TUMOR LOCALIZATION | | |
| Xe-133 | BLOOD FLOW STUDIES AND PULMONARY FUNCTION STUDIES | | |
| Tl-201 | MYOCARDIAL PERFUSION IMAGING | | |
| OTHER | | | |
| Tc-99m | BRAIN IMAGING | | |
| | CARDIAC IMAGING | | |
| | THYROID IMAGING | | |
| | SALIVARY GLAND IMAGING | | |
| | BLOOD POOL IMAGING | | |
| | PLACENTAL LOCALIZATION | | |
| | LIVER AND SPLEEN IMAGING | | |
| | LUNG IMAGING | | |
| | BONE IMAGING | | |
| OTHER | | | |
| P-32 Soluble | TREATMENT OF POLYCYTHEMIA VERA, LEUKEMIA, AND BONE METASTASIS | | |
| P-32 Colloidal | INTRACAVITARY TREATMENT | | |
| I-131 | TREATMENT OF HYPERTHYROIDISM AND CARDIAC CONDITION | | |
| | TREATMENT OF THYROID CARCINOMA | | |
| Au-198 | INTRACAVITARY TREATMENT | | |
| Co-60 or Cs-137 | INTERSTITIAL TREATMENT | | |
| | INTRACAVITARY TREATMENT | | |
| I-125 or Ir-192 | INTERSTITIAL TREATMENT | | |
| Ra-226 | INTERSTITIAL TREATMENT | | |
| Ra-226 | INTRACAVITARY TREATMENT | | |
| Rn-222 | INTERSTITIAL TREATMENT | | |
| Co-60 or Cs-137 | TELETHERAPY TREATMENT | | |
| Sr-90 | TREATMENT OF EYE DISEASE | | |

3. DATES AND TOTAL NUMBER OF HOURS RECEIVED IN CLINICAL RADIOISOTOPE TRAINING

4. THE TRAINING AND EXPERIENCE INDICATED ABOVE WAS OBTAINED UNDER THE SUPERVISION OF:

a. NAME OF SUPERVISOR:

b. NAME OF INSTITUTION:

c. MAILING ADDRESS:

d. CITY

5. RADIOACTIVE MATERIALS LICENSE NUMBER(S)

6. PRECEPTOR'S SIGNATURE:

7. PRECEPTOR'S NAME (Please type or Print)

DATE: